

NAPCS Discussion Paper*

A Progress Report

on

Developing the Structure of the North American Product Classification System (NAPCS):

Design Concepts and Principles and Implementation Constraints

by

Michael F. Mohr**

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***NAPCS Discussion Papers are provided to inform and to foster and facilitate professional exchange on matters related to the development and implementation of NAPCS.**

**** Michael Mohr was the US Coordinator for NAPCS from its beginnings in 1998 through 2010 and served as a special assistant to the Assistant Director for Economic Product Programs and to the Assistant Division Chief for Classification Activities at the Census Bureau. Opinions expressed in this paper are strictly those of the author and do not necessarily represent the opinion of the Census Bureau, the US Economic Classification Policy Committee (ECPC), or the member agencies of the ECPC.**

I. Introduction

The inspiration for the creation of the North American Product Classification System (NAPCS) is found in the July 26, 1994 **Federal Register** notice which, in addition to announcing the development of the North American Industry Classification System (NAICS), also indicated that each country [*Canada, Mexico, and the United States*] would provide product data compiled within the framework of its respective statistical system, to meet the need for such information. Recognizing the increasing international trade in goods and services, each country envisaged working cooperatively to help improve existing commodity classification systems, including the Harmonized System (HS) of the Customs Cooperation Council and the United Nations' Central Product Classification System (CPC) for services. In particular, the three countries agreed that such cooperation would entail coordinating their product classification efforts and keeping each other informed of proposals for change in this area. Integral to the product classification accord was a common recognition by the statistical agencies of the three countries that

market-oriented, or demand-based, groupings of economic data are required for many purposes, including studies of market share, demand for goods and services, import competition in domestic markets and similar studies.¹

In fulfillment of this objective, the US initiated a program in June 1998 to develop a demand-based product classification system that would encompass all products (goods and services) produced by US industries. Subsequently, in February of 1999, the US program morphed into a trilateral program, as Canada and Mexico formally joined the US in a cooperative effort to develop a new production classification to be known as the North American Product Classification system.² Between those early years and now much has been accomplished including the following. First, the three countries completed in 2008 a seminal effort to identify and define the products produced by all service producing industries in the three countries; for the US this effort provided product detail for the 370 US industries covered by the 12 NAICS service sectors from Sector 48-49 through Sector 81.

Second, in 2004, a high-level, trilateral working group developed an "Illustrative" NAPCS structure which outlined 29 high-level "building blocks" that might be used as the foundation for developing the comprehensive, demand-based product classification that was envisioned by the parties to 1994 Federal Register notice. However, major progress in this area was not made until after mid-2008 when the US, with the approval of Canada and Mexico, undertook a crucial research project to demonstrate that a comprehensive demand-based classification, built on the Illustrative NAPCS structure, was possible and what it might look like. During this 2-year (and still ongoing) effort, dubbed the NAPCS "Strawman" project, the US team refined and greatly expanded the 2004 Illustrative structure into a full-blown demand-based classification system, and, by the end of 2009, it mapped more than 12,000 US products for mined and manufactured goods, wholesale and retail service products, and service industry products into it.

¹ See July 26, 1994 **Federal Register** notice, p. 38094, at www.census.gov/eos/www/naics/federal_register_notices/fedregister.html.

² See April 16, 1999 **Federal Register** notice, p.18984-9, at www.census.gov/eos/www/napcs/documentlinks.htm.

Third, using the 2009 NAPCS Strawman classification as a starting point and guide, the three countries completed agreements in 2010 that mapped virtually all the manufactured and mineral goods and the wholesale and retail service products produced by industries in the respective countries into variants of the 2009 Strawman. Specifically, the agreements reached in each of these areas identified the trilateral products groupings the countries would have in common, established the product content of each grouping, and specified where each grouping should be classified in the NAPCS Strawman.

The remainder of this paper briefly outlines and discusses the concepts and process underlying the development of the NAPCS Strawman. Section II articulates the demand-based design concepts and principles employed to create both the 2004 Illustrative NAPCS structure and its successor 2009 NAPCS Strawman structure, and it highlights important details of the 2009 Strawman structure. Section III discusses how, why, and where the realities of implementation constraints embodied in the 2010 trilateral agreements affected and changed the design of the 2009 Strawman structure. Section IV briefly presents and discusses the few additional revisions that the author is proposing to the Strawman structure. Section V closes with some summarizing thoughts regarding the importance of the NAPCS and future direction of this effort. The Exhibit section of the paper presents two versions of the NAPCS Strawman structure that show the high-level product classes, subclasses, and product groups embodied in each version. Version A identifies (to a close approximation) the 2009 Strawman as it was introduced to Canada and Mexico. Version B identifies (in green type) changes to the 2009 structure that resulted from inter- and intra-country implementation constraints that surfaced during intensive trilateral meetings and discussions that took place during 2010. It also identifies (in red type) a few additional changes to the structure the author is proposing.

Finally, while bearing in mind that the three countries have yet to discuss and agree on the classification of the thousands of service products produced by the trilateral work completed in 2008 and that the countries still have to agree on and classify the product detail for industries in the agriculture (NAICS 11), utilities (NAICS 22), and construction (NAICS 23) sectors of the economy, the ensuing presentation should provide interested parties with an understanding of the design architecture for and a realistic first glimpse of what the ultimate NAPCS will look like.

II. Design Concepts and Principles Underlying NAPCS “Strawman” Structure

As noted above, the product classification accord announced in the 1994 Federal Register notice envisioned the creation of a trilateral demand-based classification of the products produced within and traded among the economies of Canada, Mexico, and the United States. Like its predecessor 2004 Illustrative NAPCS structure, the design of the 2009 Strawman structure was guided by demand-based concepts and principles taken from economic theory, including consumer demand, production, and aggregation theories.

Fundamental Classification Principles: These closely related branches of economic thinking suggest that, in a demand-based classification system, products (goods and services) should be classified according to how they are primarily used and how they are used in relationship to each other (as near or distant substitutes and complements in demand) in satisfying that primary use.

They also suggests that a common-sense empirical application of this principle should incorporate the following additional principles: first, the universe of products to be classified should be sorted according to whether each product is primarily used to satisfy personal/household needs versus business (defined broadly to include government and institutions) input needs; second, the products classified within each of these two broad use categories should be further sorted according to the primary category of demand they are used to satisfy (e.g., household food needs versus household furniture needs; business capital input needs versus business labor input needs); and third, products which are used (as close substitutes or complements) to satisfy a common need should be classified in close association to each other in the classification system.

The Version A column of the Exhibit section of this paper shows the 2009 NAPCS Strawman structure and it demonstrates how these principles and concepts are embodied in it. As seen there, the Strawman contains 28 high-level demand categories (referred to here as product classes or building blocks) that are separated by yellow shading. Product classes 1 - 17 consist of groupings of products that are primarily consumed to satisfy the demand needs of persons/households, while product classes 18 - 28 consist of groupings that are primarily devoted to satisfying the input demand needs of businesses. The more detailed structure shown within most product classes reveals the nature of the goods and/or services identified as being jointly consumed to satisfy that demand category. The symbiotic relationship between the demand for goods and the demand for services is found in most of the product classes where both types of products are consumed. In these classes, the structure employs a consistent representation of high-level product categories whose demand is highly interrelated, and it takes the following general form:

Good X and related products

- Good type X
- Wholesaling services for good type X
- Retailing services for good type X
- Rental or leasing services for good type X
- Maintenance and repair and services for good type X.

The simple logic of this arrangement is as follows: demand for the good creates a complementary demand for the wholesaling and/or retailing services that bring the good to the consumer and for the maintenance and repair services required to keep it in good order. Conversely, a consumer might choose to satisfy his need in a particular demand category by renting the good rather than purchasing it; a case of product substitution in demand.

As previously noted, by the end of 2009, the US project team mapped approximately 12,000 detailed products into the 28 demand based categories shown in the 2009 NAPCS Strawman. While the Exhibit suppresses the detailed products that were mapped, suffice it to say that the mapping process was guided by a great deal of research taken from the Internet, the 2002 Input-Output workfile compiled by BEA, and internal Census Bureau sources, etc. It is also important

to note that the mapping for manufactured and mineral goods and, especially, for wholesale and retail service products was based on our understanding at that time of the content of these Census Bureau collected products.

III. Important Implementation Constraints and their Effect on 2009 NAPCS “Strawman” Structure

After the 2009 NAPCS Strawman was transmitted to US counterparts in Canada and Mexico, it spawned an extended (and still ongoing) period of review, explanation, debate, and discussion within and among the three countries regarding, among other things, the Strawman design, the placement of specific products within it, and the comparability of product detail data across the three countries. In 2010, this process became more formalized and focused during the course of four high-level trilateral meetings that concentrated on: (a) identifying potential trilateral groupings of manufactured and mineral product and of wholesale and retail products across the three countries; (b) agreeing on the detailed product content of the trilateral product groups in each area; (c) determining gaps in the comparability of the product lines available for the wholesale and retail trade of goods within and across countries and establishing solutions; and (d) deciding whether the comparable product groups could be placed in the received 2009 version of the Strawman or whether its design had to be modified to obtain a three-country classification.

Although in turns painful and exhilarating, this very deliberative implementation process was invaluable to the advancement of NAPCS and to the quality and trilateral usefulness of the content contained in it. The Version B column of the Exhibit section of the paper identifies (in green type) some instances where various within- and cross-country data constraints that surfaced during the implementation process impacted the 2009 Strawman structure. The difference in numbering between product classes 18 – 28 of the Version A Strawman and product classes 18 – 30 of the Version B Strawman is the result of the author’s proposal (red type) to insert new product classes (18, 22, and 23) into the structure and to move Version A product class 22 under Version B product class 18, as discussed in the next section. Otherwise, the comparable product classes are aligned for easy comparison in each section of the Exhibit. As seen there, while overall the structure remained in tact at the high-levels displayed (constraints that affected where several detailed products were mapped into the structure are not shown), implementation constraints did affect the 2009 Strawman structure in the following Version A product classes:

- Class 1 and Class 24 (change jointly affected subclass 1.1 and subclass 24.1),
- Class 5 and Class 12 (change jointly affected subclasses 5.1 – 5.3 and 12.1,
- Class 5 and Class 24 (change jointly affected product groups 5.4.1 and 24.17.1),
- Class 6, Class 10, and Class 26 (change jointly affected subclasses 6.4 and 10.1 and product groups 6.8.4 and 26.5.1),
- Class 19 (change affected subclasses 19.4 - 19.7), and
- Class 24 (change affected all subclasses).

A word of explanation for each of these changes follows.

Class 1 and Class 24 (subclass 1.1 and subclass 24.1) Changes:

This change is perhaps the most important and most substantive change to the 2009 Strawman occasioned by implementation constraints. In the 2009 Strawman, the US partitioned the multitude of processed food products between products used primarily for home food preparation and consumption (mapped to Version A subclass 1.1), and those products used primarily as inputs to food manufacturing (human and animal) and to food preparation services in, for example, restaurants, hotels, and hospitals (mapped to Version A subclass 24.1). As is fairly transparent, the same type of product (e.g., milk, sugar) is used in both areas. However, US data for these same-type products ubiquitously identified different detailed products based on degree of processing distinctions, human or pet food distinctions, and on packaging distinctions: (1) those shipped in bulk or in commercial/industrial size packages and (2) those shipped in consumer packages. Using these product data distinctions, along with guidance derived from BEA's 2002 Input-Output workfile, enabled the US to sort and map manufactured food products between subclasses 1.1 and 24.1. However, the 2010 discussions revealed that this approach was not applicable at the trilateral level due to data limitations in or more countries. As suggested by the titles under Version B product subclasses 1.1 and 26.1, the agreed to trilateral solution was to move virtually all processed food types that could be consumed by humans to Version B subclass 1.1 and to confine Version B subclass 26.1 to raw agricultural and non-human feed inputs. Importantly, under the US implementation of this agreement, all the detailed products reclassified from Version A subclass 24.1 to Version B subclass 1.1 will continue to be identified separately.

Class 5 and Class 12 (subclasses 5.1 – 5.3, and 12.1) Changes

These changes reflect primarily the inability of the three countries to sort household appliances (including small personal electrical) as envisioned under Version A subclasses 5.1 – 5.3 and 12.1. This constraint was apparent both for the goods products and the wholesale and retail service products. The trilateral solution shown in Version B was to combine all household appliances under the new subclass 5.1. As a result, small personal electrical appliances (e.g., hair dryers, shavers, and tooth brushes) were moved from Version A product subclass 12.1 to Version B subclass 5.1.

Class 5 and Class 24 (product groups 5.4.1 and 24.17.1)

The implementation change noted in green type for Version B product group 5.4.1 reflects the fact that data limitations in one or more countries would not allow identification of separate pesticide and fertilizer products for household and agricultural use as envisioned in Version A product groups 5.4.1, Home lawn and garden products (including household pesticides and fertilizers) and 24.17.1, Materials and supplies for agriculture, hunting, and fishing and lawn and landscaping services. The trilateral solution was to classify all pesticide and fertilizer products in Materials and supplies for agriculture, hunting, and fishing and lawn and landscaping services (Version B product group 26.1.17).

Class 6, Class 10, and Class 26 (subclasses 6.4 and 10.1 and product groups 6.8.4 and 26.5.1) Changes

The changes shown in green type for Version B product classes 6, 10, and 28 reflect primarily the inability of the three countries to sort publications and related distribution services, in the manner envisioned by the 2009 Strawman, between household entertainment, recreation, culture, and education uses on the one hand and business uses on the other. The trilateral solution to this implementation constraint was to move textbooks from Version A subclass 10.1 and business oriented periodicals from Version A product group 26.5.1 to subclass 6.4 in Version B. It was also agreed that print music publications and related wholesaling services would be separated from musical instruments in product group 6.8.4 in Version A and moved to subclass 6.4 in Version B, but, reflecting reality in the market place, retailing services for musical instruments and print music would remain coupled in Version B product subgroup 6.8.4.3. At the present time, however, the trilateral disposition regarding the classification of business advertising orientated publications - mailing lists, databases, and directories - is unclear. In the 2009 Strawman, mailing lists were classified as an advertising related product under Version A subclass 26.3, while databases and directories were classified under Version A subclass 26.5.1. So, I have provisionally reclassified the latter two publications to be with mailing lists in Version B product subclass 28.1. The result of these implementation constraints is that, under Version B, product class 10 includes only education related services and product subclass 28.3 includes only publishing related services.

Class 19 (subclasses 19.4 - 19.7) Changes

The green type under Version B product class 20 shows that the most notable impact of implementation constraints on the capital equipment section of the Strawman was to combine under Version B subclass 20.6 products that were originally classified under Version A subclasses 19.6 and 19.7. This change reflects mainly the inability in one or more countries to synchronize the business investment goods products with comparable wholesale services products as originally envisioned in the 2009 Strawman. Also, all the retail service products that had placeholder assignments under 19.4 – 19.7 in the 2009 Strawman have now been reassigned under Version B to subclass 20.7, because available data and research indicated that, outside of used goods, retailing services are either not identified or are only marginally important for the investment goods originally classified in Version A subclasses 19.4 – 19.7.

Class 24 (all subclasses) Changes

The green type under Version B class 26 shows that implementation constraints forced a decoupling of the goods products from the wholesale and retail trade service products that were classified in the 2009 Strawman as shown under all subclasses of class 24 in Version A. While the three countries agreed that the goods in this class should be mapped in a manner very close to the 22 subclasses found in Version A class 24, they also concluded they would be unable to replicate this mapping with their available product data for wholesale and retail trade services. As shown under Version B subclass 26, the trilateral resolution to this problem was to map the goods, wholesale services, and retail services products into separate subclasses 26.1, 26.2, and 26.3 respectively. The trilateral agreement in this section of the Strawman also saw materials and supplies for furniture manufacturing moved from Version A product group 24.16.1,

Materials and supplies for furniture and miscellaneous manufacturing, to Version B product group 26.1.5, Materials and supplies for wood and furniture manufacturing, because of data constraints that affected one or more countries.

IV. Some Proposed Modifications to the NAPCS “Strawman” Structure

Before concluding this paper, I propose two revisions to the 2009 NAPCS Strawman for US and trilateral consideration; these proposals are reflected in red type in Versions A and B of the Strawman structure.³ First, I propose that product subclass 5.7, product class 22, and subclass 24.19 in Version A of the Strawman be moved and consolidated under the Version B product class 18. The reason for this proposal is that, while the distributors (electricity and natural gas distributors, wholesalers, and retailers) of these goods (fuels, electricity) can report separate data for services provided to households and to businesses, the goods producers (fuels producers in mining and manufacturing, electricity generators and transmitters in utilities) can not report such class-of-customer data. Placing all of these products in new class 18, between the household and business partition in the Version B Strawman, not only recognizes this reality but it also gives primacy to the principle that all the products included in class 18 should be kept together because they satisfy a common generic need and the demand for them is so highly interrelated.

Second, I propose that Version A product subclasses 26.1 and 26.2 be moved and become the Version B product classes 22 and 23. The service products included under new proposed class 22, Specialized design services (except interior design), are often the source of IP owned by others, and the products included under new proposed class 23, Testing services (except automotive regulatory safety and emissions), are used in close association with the research and development products included in Version B class 21 (Version A class 20). As such, this proposal seeks simply to improve the conceptual design of the Strawman by bringing it into closer conformance with the core design principle set forth in Section II.

V. Summary

This paper described and reported on the process of developing and designing the architecture of the demand-based North American Product Classification System (NAPCS) that was first envisioned in the three-country accord announced in 1994. In particular, the paper reported that, building on the conceptual kernel for the design of the system that was embodied in the 2004 Illustrative NAPCS, the recent 2008-10 NAPCS Strawman period witnessed substantial progress on the long road towards achieving that original idea. And, it reported that, during 2010, the three countries completed classification agreements that covered not only the manufactured and mined goods but also the wholesale and retail services products produced by the industries in the three countries. The paper also demonstrated how the ultimate classification structure would be impacted by practical implementation constraints embodied in these agreements. Looking ahead to 2011, I anticipate that the three countries will complete agreements classifying the several

³ These proposals address design issues that became apparent to but not resolved by the author during the 2009 NAPCS Strawman design work.

thousand service industry products developed under the NAPCS project and will have made substantial progress toward incorporating the products of the agriculture and utility sectors of the economy. At that point, NAPCS will cover the products of all private sector industries but construction, thereby allowing a more definite picture of the ultimate NAPCS design to emerge. However, it should be anticipated that incorporating these additional product areas into the system will likely generate additional implementation constraints and require further modification to the NAPCS Strawman structures presented in this paper.

Finally, while achieving a fully articulated NAPCS (structure and product content) will benefit a wide variety of users of product data, the importance of completing NAPCS to the Census Bureau is likely to be substantial. Because NAPCS will (1) cover all produced products and assign an unique code in the classification system to each product, regardless of whether one or several industries produce it, and (2) require developing proper definitions that make apparent the content of each classified product, it could provide an invaluable tool to both more effectively administer and coordinate Census' mission to collect, tabulate, and publish product data across subject areas and to improve the quality and types of the data items provided. One can only imagine, for example, the breadth of interest that would surround the Bureau's publishing a comprehensive Make Table in Economic Census years that identifies not only the value of each product produced by a given industry but also shows each industry's contribution to the economy-wide total production of a given product.

Exhibit:

NAPCS Strawman Structure

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
1 Food, beverages, and tobacco products	1 Food, beverage, and tobacco products (except raw farm products)
1.1 Food and beverages purchased for future consumption, and related products	1.1 Processed food and beverage products for home food preparation, food manufacturing, and food preparation services, and related products
1.1.1 Food and beverages purchased for future consumption	1.1.1 Processed food and beverage products for home food preparation, food manufacturing, and food preparation services
1.1.2 Wholesaling services for food and beverages purchased for future consumption	1.1.2 Wholesaling services for processed food and beverage products for home food preparation, food manufacturing, and food preparation services
1.1.3 Retailing services for food and beverages purchased for future consumption	1.1.3 Retailing services for processed food and beverage products for home food preparation, food manufacturing, and food preparation services
1.2 Food and beverages prepared for immediate consumption	1.2 Meal and beverage preparation services
1.3 Tobacco products, smoking accessories, and related products	1.3 Tobacco products, smoking accessories, and related products
1.3.1 Tobacco products and smoking accessories	1.3.1 Tobacco products and smoking accessories
1.3.2 Wholesaling services for tobacco products and smoking accessories	1.3.2 Wholesaling services for tobacco products and smoking accessories
1.3.3 Retailing services for tobacco products and smoking accessories	1.3.3 Retailing services for tobacco products and smoking accessories
2 Clothing, footwear, personal accessories, and related products	2 Clothing, footwear, personal accessories, and related products
2.1 Clothing, footwear, and personal accessories	2.1 Clothing, footwear, and personal accessories
2.2 Wholesaling services for clothing, footwear, and personal accessories	2.2 Wholesaling services for clothing, footwear, and personal accessories
2.3 Retailing services for clothing, footwear, and personal accessories	2.3 Retailing services for clothing, footwear, and personal accessories
2.4 Rental of formal wear, costumes, and accessories	2.4 Rental of formal wear, costumes, and accessories
2.5 Cleaning, tailoring, and repair services for clothing, footwear, and personal accessories	2.5 Cleaning, tailoring, and repair services for clothing, footwear, and personal accessories
3 Housing and related products	3 Housing and related products
3.1 Residential buildings (except apartments) and related products	3.1 Residential buildings (except apartments) and related products
3.1.1 Constructions for residential buildings (except apartment buildings)	3.1.1 Constructions for residential buildings (except apartment buildings)
3.1.1.1 Single detached	3.1.1.1 Single detached
3.1.1.2 Double (including duplex, semi-detached)	3.1.1.2 Double (including duplex, semi-detached)
3.1.1.3 Row housing	3.1.1.3 Row housing
3.1.1.4 Additions, renovations, and alterations to residential buildings	3.1.1.4 Additions, renovations, and alterations to residential buildings
3.1.1.5 Manufactured (mobile) homes	3.1.1.5 Manufactured (mobile) homes
3.1.1.5.1 Manufactured (mobile) homes, all width sizes (including multisection)	3.1.1.5.1 Manufactured (mobile) homes, all width sizes (including multisection)
3.1.1.5.2 Wholesaling services for manufactured (mobile) homes	3.1.1.5.2 Wholesaling services for manufactured (mobile) homes
3.1.1.5.3 Retailing services for manufactured (mobile) homes	3.1.1.5.3 Retailing services for manufactured (mobile) homes
3.1.2 Maintenance and repair services that maintain the value for the existing residential building	3.1.2 Maintenance and repair services that maintain the value for the existing residential building
3.2 Real estate services for buying, selling, and renting homes	3.2 Real estate services for buying, selling, and renting homes
3.3 Home, apartment, rooming house, and other residential space rental	3.3 Home, apartment, rooming house, and other residential space rental
3.4 Other products related to housing	3.4 Other products related to housing
3.4.1 Home mortgage financing	3.4.1 Home mortgage financing
3.4.1.1 Residential mortgage loans	3.4.1.1 Residential mortgage loans
3.4.1.2 Other secured or guaranteed loans to consumers	3.4.1.2 Other secured or guaranteed loans to consumers
3.4.2 Household property and liability insurance	3.4.2 Household property and liability insurance
3.4.3 Home inspection services, including inspection services for new home construction	3.4.3 Home inspection services, including inspection services for new home construction
3.4.4 Real estate appraisal services for homes	3.4.4 Real estate appraisal services for homes
3.4.5 Household moving services	3.4.5 Household moving services
3.5 Public housing services	3.5 Public housing services
4 Home furniture, furnishings and accessories, and related products	4 Home furniture, furnishings and accessories, and related products
4.1 Home furniture, furnishings, and accessories	4.1 Home furniture, furnishings, and accessories

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
4.2 Wholesaling services for home furniture, furnishings, and accessories	4.2 Wholesaling services for home furniture, furnishings, and accessories
4.3 Retailing services for home furniture, furnishings, and accessories	4.3 Retailing services for home furniture, furnishings, and accessories
4.4 Rental services for home furniture, furnishings, and accessories	4.4 Rental services for home furniture, furnishings, and accessories
4.5 Cleaning and repair services for home furniture, furnishings, and accessories	4.5 Cleaning and repair services for home furniture, furnishings, and accessories
4.6 Interior decorating services	4.6 Interior decorating services
5 Home operation products	5 Home operation products
5.1 Home food preparation, service, and storage products, and related products (except rental and maintenance and repair services)	5.1 Household appliances and related products (except rental and maintenance and repair services)
5.1.1 Kitchen appliances and related products (except rental and maintenance and repair services)	5.1.1 Household appliances and related products (except rental and maintenance and repair services)
5.1.1.1 Kitchen appliances	5.1.2 Wholesaling services for household appliances
5.1.1.1.2 Wholesaling services for kitchen appliances	5.1.3 Retailing services for household appliances
5.1.1.1.3 Retailing services for kitchen appliances	
5.1.2 Cookware, dinnerware (including paper and plastic tableware), utensils, and related products (except rental and maintenance and repair services)	5.2 Cookware, dinnerware, utensils, and related products (except rental and maintenance and repair services)
5.1.2.1 Cookware, dinnerware (including paper and plastic tableware), and utensils	5.2.1 Cookware, dinnerware, and utensils
5.1.2.2 Wholesaling services for cookware, dinnerware (including paper tableware), and utensils	5.2.2 Wholesaling services for cookware, dinnerware, and utensils
5.1.2.3 Retailing services for cookware, dinnerware (including paper and plastic tableware), and utensils	5.2.3 Retailing services for cookware, dinnerware, and utensils
5.1.3 Other home food preparation, service, and storage products, and related products	
5.2 Home laundry and related products (except rental and maintenance and repair services)	5.3 Home and laundry cleaning chemicals and supplies, and related products
5.2.1 Home laundry appliances and related products	5.3.1 Home and laundry cleaning chemicals and supplies
5.2.1.1 Home laundry appliances	5.3.2 Wholesaling services for home and laundry cleaning chemicals and supplies
5.2.1.2 Wholesaling services for home laundry appliances	5.3.3 Retailing services for home and laundry cleaning chemicals and supplies
5.2.1.3 Retailing services for home laundry appliances	
5.2.2 Home laundry cleaning and treatment products and related products	
5.2.2.1 Home laundry cleaning and treatment products	
5.2.2.2 Wholesaling services for home laundry cleaning and treatment products	
5.2.2.3 Retailing services for home laundry cleaning and treatment products	
5.3 Home cleaning and related products (except rental and maintenance and repair services)	
5.3.1 Home cleaning appliances and related products	
5.3.1.1 Home cleaning appliances	
5.3.1.2 Wholesaling services for home cleaning appliances	
5.3.1.3 Retailing services for home cleaning appliances	
5.3.2 Home cleaning products and related products	
5.3.2.1 Home cleaning products	
5.3.2.2 Wholesaling services for home cleaning products	
5.3.2.3 Retailing services for home cleaning products	
5.3.3 Home cleaning services	5.3.4 Home cleaning services
5.4 Home lawn and garden products, and related products (except rental and maintenance and repair services)	5.4 Home lawn and garden products, and related products (except rental and maintenance and repair services)
5.4.1 Home lawn and garden products (including household pesticides and fertilizers)	5.4.1 Home lawn and garden products (excluding household pesticides and fertilizers)
5.4.2 Wholesaling services for home lawn and garden products	5.4.2 Wholesaling services for home lawn and garden products

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5.4.3 Retailing services for home lawn and garden products	5.4.3 Retailing services for home lawn and garden products
5.4.4 Pest extermination and control services, residential	5.4.4 Pest extermination and control services, residential
5.4.5 Home landscaping services	5.4.5 Home landscaping services
5.5 Rental services for home operation appliances and equipment	5.5 Rental services for home operation appliances and equipment
5.6 Maintenance and repair services for home operation appliances and equipment	5.6 Maintenance and repair services for home operation appliances and equipment
5.7 Home energy distribution services	In version B, this group of products moved to product class 18 below.
5.7.1 Residential electricity distribution services	
5.7.2 Residential fuel distribution services	
5.8 Home water and sewer services (except steam and air conditioning)	5.7 Home water and sewer services (except steam and air conditioning)
5.10 Home waste management services (except water and sewer)	5.8 Home waste management services (except water and sewer)
5.11 Residential and public telephony services	5.9 Residential and public telephony services
5.11 Other home operation products, and related products (except rental and maintenance and repair services)	5.10 Other home operation products, and related products (except rental and maintenance and repair services)
5.11.1 Other home operation goods	5.10.1 Other home operation goods
5.11.1.1 Household paper and plastic goods, nec.	5.10.1.1 Household paper and plastic goods, nec.
5.11.1.2 Other home operation goods	5.10.1.2 Other home operation goods
5.11.2 Wholesaling services for other home operation goods, nec.	5.10.2 Wholesaling services for other home operation goods, nec.
5.11.3 Retailing services for other home operation goods, nec.	5.10.3 Retailing services for other home operation goods, nec.
5.11.4 Residential security services	5.10.4 Residential security services
6. Home entertainment, recreation and culture products	6. Home entertainment, recreation and culture products
6.1 Home audio and visual equipment (except personal computers) and related products (including pre-recorded media)	6.1 Home audio and visual equipment (except personal computers) and related products (including pre-recorded media)
6.1.1 Home audio and visual equipment and pre-recorded media	6.1.1 Home audio and visual equipment and pre-recorded media
6.1.2 Wholesaling services for home audio and visual equipment	6.1.2 Wholesaling services for home audio and visual equipment
6.1.3 Retailing services for home audio and visual equipment	6.1.3 Retailing services for home audio and visual equipment
6.1.4 Rental services for home audio and visual equipment	6.1.4 Rental services for home audio and visual equipment
6.1.5 Maintenance and repair services for home audio and visual equipment	6.1.5 Maintenance and repair services for home audio and visual equipment
6.2 Home programming distribution services	6.2 Home programming distribution services
6.3 Home internet services	6.3 Home internet services
6.4 Home newspapers, periodicals, books (except textbooks), other publications, and related products	6.4 Newspapers, periodicals, books, and other publications (except mailing lists, directories, and databases), and related products
6.5 Film and video exhibitions	6.5 Film and video exhibitions
6.6 Performing arts, live events, public exhibitions, and related products	6.6 Performing arts, live events, public exhibitions, and related products
6.7 Spectator sports, live events	6.7 Spectator sports, live events
6.8 Recreation, sports, and fitness products (including boats, motorcycles, other sports vehicles, and musical instruments), and related products	6.8 Recreation, sports, and fitness products (including boats, motorcycles, other sports vehicles, and musical instruments), and related products
6.8.1 Sporting and recreational equipment and related products	6.8.1 Sporting and recreational equipment and related products
6.8.1.1 Sporting and recreational equipment	6.8.1.1 Sporting and recreational equipment
6.8.1.2 Wholesaling services for sporting and recreational equipment	6.8.1.2 Wholesaling services for sporting and recreational equipment
6.8.1.3 Retailing services for sporting and recreational equipment	6.8.1.3 Retailing services for sporting and recreational equipment
6.8.2 Toys, games, and hobby and craft supplies for home use (excluding DVD-based electronic game consoles and game software), and related products	6.8.2 Toys, games, and hobby and craft supplies for home use (excluding DVD-based electronic game consoles and game software), and related products
6.8.2.1 Toys, games, and hobby and craft supplies for home use (excluding DVD-	6.8.2.1 Toys, games, and hobby and craft supplies for home use (excluding DVD-
6.8.2.2 Wholesaling services for toys, games, and hobby and craft supplies for home	6.8.2.2 Wholesaling services for toys, games, and hobby and craft supplies for home

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
6.8.2.3 Retailing services for toys, games, and hobby and craft supplies for home use (excluding DVD-based electronic game consoles and game software)	6.8.2.3 Retailing services for toys, games, and hobby and craft supplies for home use (excluding DVD-based electronic game consoles and game software)
6.8.3 Boats, motorcycles, and other sports vehicles, and related products	6.8.3 Boats, motorcycles, and other sports vehicles, and related products
6.8.3.1 Boats, motorcycles, and other sports vehicles	6.8.3.1 Boats, motorcycles, and other sports vehicles
6.8.3.2 Wholesaling services for boats, motorcycles, and other sports vehicles	6.8.3.2 Wholesaling services for boats, motorcycles, and other sports vehicles
6.8.3.3 Retailing services for boats, motorcycles, and other sports vehicles	6.8.3.3 Retailing services for boats, motorcycles, and other sports vehicles
6.8.4 Musical instruments and print music and related products	6.8.4 Musical instruments and related products
6.8.4.1 Musical instruments and print music	6.8.4.1 Musical instruments
6.8.4.2 Wholesaling services for musical instruments and print music	6.8.4.2 Wholesaling services for musical instruments
6.8.4.3 Retailing services for musical instruments and print music	6.8.4.3 Retailing services for musical instruments and print music
6.8.5 Rental services for recreational, sports, and fitness equipment (including boats, motorcycles, other sports vehicles, and musical instruments)	6.8.5 Rental services for recreational, sports, and fitness equipment (including boats, motorcycles, other sports vehicles, and musical instruments)
6.8.6 Maintenance and repair services for recreational, sports, and fitness equipment (including boats, motorcycles, other sports vehicles, and musical instruments)	6.8.6 Maintenance and repair services for recreational, sports, and fitness equipment (including boats, motorcycles, other sports vehicles, and musical instruments)
6.8.7 Recreation, sports, fitness, and related services (except amusement park and	6.8.7 Recreation, sports, fitness, and related services (except amusement park and
6.8.7.1 Recreation, sports, and fitness services	6.8.7.1 Recreation, sports, and fitness services
6.8.7.2 Services related to recreation, sports, and fitness	6.8.7.2 Services related to recreation, sports, and fitness
6.9 Amusement park and arcade services	6.9 Amusement park and arcade services
6.10 Other home entertainment, recreation, and culture products	6.10 Other home entertainment, recreation, and culture products
7 Household pets and related products	7 Household pets and related products
7.1 Household pets	7.1 Household pets
7.2 Food, supplies, and accessories for household pets	7.2 Food, supplies, and accessories for household pets
7.3 Wholesaling services for household pets, pet foods, and pet supplies	7.3 Wholesaling services for household pets, pet foods, and pet supplies
7.4 Retailing services for household pets, pet foods, and pet supplies	7.4 Retailing services for household pets, pet foods, and pet supplies
7.5 Veterinary services for household pets	7.5 Veterinary services for household pets
7.6 Non-medical services for household pets	7.6 Non-medical services for household pets
8 Automobiles, light-duty trucks, and local passenger transportation service	8 Automobiles, light-duty trucks, and local passenger transportation service
8.1 Automobiles, light-duty trucks, and related products	8.1 Automobiles, light-duty trucks, and related products
8.1.1 Automobiles and light-duty trucks	8.1.1 Automobiles and light-duty trucks
8.1.2 Wholesaling services for automobiles and light-duty trucks	8.1.2 Wholesaling services for automobiles and light-duty trucks
8.1.3 Retailing services for automobiles and light-duty trucks	8.1.3 Retailing services for automobiles and light-duty trucks
8.1.4 Leasing services for automobiles and light trucks (except financial)	8.1.4 Leasing services for automobiles and light trucks (except financial)
8.1.5 Maintenance and repair and related services for automobiles and light-duty trucks	8.1.5 Maintenance and repair and related services for automobiles and light-duty trucks
8.1.6 Consumer vehicle loans	8.1.6 Consumer vehicle loans
8.1.7 Private motor vehicle insurance	8.1.7 Private motor vehicle insurance
8.1.8 Parking services	8.1.8 Parking services
8.1.9 Other vehicle operating services	8.1.9 Other vehicle operating services
8.2 Local transportation services	8.2 Local transportation services
9 Leisure and long-distance travel, tourism, and accommodation products	9 Leisure and long-distance travel, tourism, and accommodation products
9.1 Motor homes, travel trailers, campers, and related products	9.1 Motor homes, travel trailers, campers, and related products
9.1.1 Motor homes, travel trailers, and campers	9.1.1 Motor homes, travel trailers, and campers
9.1.2 Wholesaling services for motor homes, travel trailers, and campers	9.1.2 Wholesaling services for motor homes, travel trailers, and campers
9.1.3 Retailing services for motor homes, travel trailers, and campers	9.1.3 Retailing services for motor homes, travel trailers, and campers
9.1.4 Rental and leasing services for motor homes, travel trailers, and campers	9.1.4 Rental and leasing services for motor homes, travel trailers, and campers

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
9.1.5 Maintenance and repair services for motor homes, travel trailers, and campers	9.1.5 Maintenance and repair services for motor homes, travel trailers, and campers
9.2 Long-distance passenger transport services	9.2 Long-distance passenger transport services
9.3 Scenic and sightseeing travel services	9.3 Scenic and sightseeing travel services
9.4 Travel arrangements, reservation, planning, and support services	9.4 Travel arrangements, reservation, planning, and support services
9.5 Travel insurance services	9.5 Travel insurance services
9.6 Short-term rental services for motor vehicles	9.6 Short-term rental services for motor vehicles
9.7 Accommodation services	9.7 Accommodation services
9.9 Other leisure and travel products	9.9 Other leisure and travel products
9.9.1 Luggage and related products	9.9.1 Luggage and related products
9.9.1.1 Luggage	9.9.1.1 Luggage
9.9.1.2 Wholesale services for luggage	9.9.1.2 Wholesale services for luggage
9.9.1.3 Retail services for luggage	9.9.1.3 Retail services for luggage
9.9.1.4 Portering or skycap services	9.9.1.4 Portering or skycap services
9.9.1.5 Rental of baggage carts	9.9.1.5 Rental of baggage carts
9.9.2 Short-term communications access services	9.9.2 Short-term communications access services
9.9.3 Short-term entertainment access services	9.9.3 Short-term entertainment access services
9.9.9 Other leisure and travel products, nec.	9.9.9 Other leisure and travel products, nec.
10 Educational products	10 Educational products (except books and other publications and goods)
10.1 Textbooks and related products	In version B, textbooks and related products moved to subclass 6.4 above.
10.1.1 Textbooks	
10.1.2 Wholesaling services for textbooks	
10.1.3 Retailing services for textbooks	
10.2 Education, training, and instruction services	10.1 Education, training, and instruction services
10.3 Educational support and consulting services	10.2 Educational support and consulting services
11 Health care products for persons	11 Health care products for persons
11.1 Drugs and medicines, and related products	11.1 Drugs and medicines, and related products
11.1.1 Drugs and medicines	11.1.1 Drugs and medicines
11.1.2 Wholesaling services for drugs and medicines	11.1.2 Wholesaling services for drugs and medicines
11.1.3 Retailing services for drugs and medicines	11.1.3 Retailing services for drugs and medicines
11.2 Health care equipment, appliances, and supplies for persons, and related products	11.2 Health care equipment, appliances, and supplies for persons, and related products
11.2.1 Health care equipment, appliances, and supplies for persons	11.2.1 Health care equipment, appliances, and supplies for persons
11.2.2 Wholesaling services for health care equipment, appliances, and supplies for persons	11.2.2 Wholesaling services for health care equipment, appliances, and supplies for persons
11.2.3 Retailing services for health care equipment, appliances, and supplies for persons	11.2.3 Retailing services for health care equipment, appliances, and supplies for persons
11.2.4 Rental services for health care equipment, appliances, and supplies for persons	11.2.4 Rental services for health care equipment, appliances, and supplies for persons
11.3 Health care and related services	11.3 Health care and related services
11.3.1 Physician, hospital, and related services (except dentist office services)	11.3.1 Physician, hospital, and related services (except dentist office services)
11.3.2 Services of dentists	11.3.2 Services of dentists
11.3.3 Ambulance and related services	11.3.3 Ambulance and related services
11.3.4 Home health care and related services	11.3.4 Home health care and related services
11.3.5 Other health care services (except assisted daily living (ADL) services)	11.3.5 Other health care services (except assisted daily living (ADL) services)
11.3.6 Assisted daily living (ADL) and related services	11.3.6 Assisted daily living (ADL) and related services
11.4 Health, life, and accident insurance	11.4 Health, life, and accident insurance

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12 Personal care products and related products	12 Personal care products and related products
12.1 Personal care equipment and supplies and related products	12.1 Personal care nonelectrical equipment and supplies and related products
12.1.1 Personal care equipment and supplies	12.1.1 Personal care nonelectrical equipment and supplies
12.1.2 Wholesaling services for personal care equipment and supplies	12.1.2 Wholesaling services for personal care nonelectrical equipment and supplies
12.1.3 Retailing services for personal care equipment and supplies	12.1.3 Retailing services for personal care nonelectrical equipment and supplies
12.2 Personal care services	12.2 Personal care services
13 Funeral products, and related products	13 Funeral products, and related products
13.1 Caskets and other funeral goods	13.1 Caskets and other funeral goods
13.2 Wholesaling services for caskets and other funeral goods	13.2 Wholesaling services for caskets and other funeral goods
13.3 Retailing services for caskets and other funeral goods	13.3 Retailing services for caskets and other funeral goods
13.4 Funeral services	13.4 Funeral services
14 Personal financial and related products, nec.	14 Personal financial and related products, nec.
14.1 Personal financial services (except mortgage and vehicle loans)	14.1 Personal financial services (except mortgage and vehicle loans)
14.1.1 Deposit account services (except business)	14.1.1 Deposit account services (except business)
14.1.2 Consumer loans	14.1.2 Consumer loans
14.1.3 Credit financing products for consumers (except loans)	14.1.3 Credit financing products for consumers (except loans)
14.1.4 Personal trust services	14.1.4 Personal trust services
14.1.5 Personal financial planning and investment management services	14.1.5 Personal financial planning and investment management services
14.1.9 Other personal financial services, nec.	14.1.9 Other personal financial services, nec.
14.2 Personal insurance services, nec.	14.2 Personal insurance services, nec.
14.3 Personal tax preparation and representation services	14.3 Personal tax preparation and representation services
14.4 Consumer credit counseling and credit repair services	14.4 Consumer credit counseling and credit repair services
15 Personal legal and related products	15 Personal legal and related products
15.1 Legal services, criminal law	15.1 Legal services, criminal law
15.2 Legal services, civil law	15.2 Legal services, civil law
15.2.1 Legal services, wills, estates and trusts	15.2.1 Legal services, wills, estates and trusts
15.2.2 Legal services, family law	15.2.2 Legal services, family law
15.3 Legal services, immigration, and refugee law	15.3 Legal services, immigration, and refugee law
15.4 Legal support services	15.4 Legal support services
15.4.1 Notarization and certification services	15.4.1 Notarization and certification services
15.4.2 Immigration consulting services	15.4.2 Immigration consulting services
16. Household and personal and related products, nec.	16. Household and personal and related products, nec.
16.1 Household and personal goods, nec.	16.1 Household and personal goods, nec.
16.2 Wholesaling services for household and personal goods, nec.	16.2 Wholesaling services for household and personal goods, nec.
16.3 Retailing services for household and personal goods, nec.	16.3 Retailing services for household and personal goods, nec.
16.4 Rental services for household and personal goods, nec.	16.4 Rental services for household and personal goods, nec.
16.5 Maintenance and repair services for household and personal goods, nec.	16.5 Maintenance and repair services for household and personal goods, nec.
16.9 Household and personal services, nec.	16.9 Household and personal services, nec.
17 Public, community, and social services, nec. (except public administration services)	17 Public, community, and social services, nec. (except public administration services)
17.1 Social assistance services	17.1 Social assistance services
17.2 Religious services	17.2 Religious services
17.3 Other public, community, and social services (except public administration services).	17.3 Other public, community, and social services (except public administration services).

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
In version A, this group of products is under product class 23 and subclass 25.19 below and subclass 5.7 above.	18 Fuels and electricity for heat, power, and transportation, and related products
In version A, fuels and wholesale and retail products for them are under product subclass 25.19 below.	18.1 Fuels for heat, power, and transportation,
	18.2 Wholesaling services for fuels for heat, power, and transportation
	18.3 Retailing services for fuels for heat, power, and transportation
	18.4 Distribution services for natural gas
	18.4.1.1 Non-residential natural gas distribution services
	18.4.1.2 Residential natural gas distribution services
	18.5 Distribution services for steam
	18.5.1 Non-residential steam distribution services
	18.5.2 Residential steam distribution services
	18.6 Electric utilities and related products
	18.6.1 Electricity production
	18.6.2 Electricity transmission services
	18.6.3 Electricity distribution services
	18.6.3.1 Non-residential electricity distribution services
	18.6.3.2 Residential electricity distribution services
	18.6.4 Support services for energy distribution
18 Apartment and non-residential constructions and related products	19 Apartment and non-residential constructions and related products
18.1 Non-residential constructions for land and infrastructure (including mining and oil and gas)	19.1 Non-residential constructions for land and infrastructure (including mining and oil and gas)
18.1.1 Non-residential constructions for land, resource, and infrastructure development	19.1.1 Non-residential constructions for land, resource, and infrastructure development
18.1.1.1 Farm infrastructure and improvements	19.1.1.1 Farm infrastructure and improvements
18.1.1.2 Mine shafts, wells, and exploration and development	19.1.1.2 Mine shafts, wells, and exploration and development
18.1.1.3 Driveways and parking lots	19.1.1.3 Driveways and parking lots
18.1.1.4 Highway and street structures	19.1.1.4 Highway and street structures
18.1.1.5 Land and water conservation and control structures	19.1.1.5 Land and water conservation and control structures
18.1.1.6 Outdoor amusement and recreation facilities	19.1.1.6 Outdoor amusement and recreation facilities
18.1.1.7 Water supply, sewage, and waste disposal facilities	19.1.1.7 Water supply, sewage, and waste disposal facilities
18.1.1.8 Electric, nuclear, and other power facilities	19.1.1.8 Electric, nuclear, and other power facilities
18.1.1.9 Telecommunications facilities	19.1.1.9 Telecommunications facilities
18.1.1.10 Air, land, and water transportation facilities	19.1.1.10 Air, land, and water transportation facilities
18.1.1.11 Military facilities, nec.	19.1.1.11 Military facilities, nec.
18.1.1.99 Other constructions for land and infrastructure (including mining and oil and gas)	19.1.1.99 Other constructions for land and infrastructure (including mining and oil and gas)
18.1.99.1 Additions, renovations, and alterations construction for land and infrastructure (including mining and oil and gas)	19.1.99.1 Additions, renovations, and alterations construction for land and infrastructure (including mining and oil and gas)
18.1.99.2 Maintenance and repair construction for land and infrastructure (including mining and oil and gas)	19.1.99.2 Maintenance and repair construction for land and infrastructure (including mining and oil and gas)
18.2 Apartment and non-residential building constructions	19.2 Apartment and non-residential building constructions
18.2.1 Apartments	19.2.1 Apartments
18.2.2 Hotels, motels, and inns	19.2.2 Hotels, motels, and inns
18.2.3 Industrial buildings	19.2.3 Industrial buildings
18.2.4 Office buildings	19.2.4 Office buildings
18.2.5 Commercial buildings	19.2.5 Commercial buildings
18.2.6 Religious buildings	19.2.6 Religious buildings
18.2.7 Educational buildings	19.2.7 Educational buildings

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18.2.8 Hospitals	19.2.8 Hospitals
18.2.9 Residential institutions and other health-related facilities	19.2.9 Residential institutions and other health-related facilities
18.2.10 Amusement and recreation buildings	19.2.10 Amusement and recreation buildings
18.2.11 Public safety buildings	19.2.11 Public safety buildings
18.2.99 Other building constructions	19.2.99 Other building constructions
18.2.99.1 Additions, renovations, and alterations construction for apartments and non-residential buildings	19.2.99.1 Additions, renovations, and alterations construction for apartments and non-residential buildings
18.3. Products related to land, infrastructure (including mining and oil and gas), and building construction (except materials and supplies)	19.3. Products related to land, infrastructure (including mining and oil and gas), and building construction (except materials and supplies)
18.3.1 Special trades contractor and related services, nec.	19.3.1 Special trades contractor and related services, nec.
18.3.2 Commercial landscaping services	19.3.2 Commercial landscaping services
18.3.3 Architecture and urban planning services	19.3.3 Architecture and urban planning services
18.3.3.1 Architecture services	19.3.3.1 Architecture services
18.3.3.1.1 Architectural services for building projects	19.3.3.1.1 Architectural services for building projects
18.3.3.1.2 Architectural consulting services	19.3.3.1.2 Architectural consulting services
18.3.3.2 Landscape architectural services	19.3.3.2 Landscape architectural services
18.3.3.3 Urban planning services	19.3.3.3 Urban planning services
18.3.3.4 Project site master planning services	19.3.3.4 Project site master planning services
18.3.4 Engineering services	19.3.4 Engineering services
18.3.5 Drafting services	19.3.5 Drafting services
18.3.6 Interior design services	19.3.6 Interior design services
18.3.7 Geophysical surveying and mapping services	19.3.7 Geophysical surveying and mapping services
18.3.7.1 Geophysical data acquisition services	19.3.7.1 Geophysical data acquisition services
18.3.7.2 Geophysical data processing services	19.3.7.2 Geophysical data processing services
18.3.7.3 Geophysical data interpretation services	19.3.7.3 Geophysical data interpretation services
18.3.7.4 Integrated geophysical services	19.3.7.4 Integrated geophysical services
18.3.7.5 Geological and geophysical consulting services	19.3.7.5 Geological and geophysical consulting services
18.3.8 Surveying, mapping, and charting services (except geophysical)	19.3.8 Surveying, mapping, and charting services (except geophysical)
18.3.9 Construction project management services	19.3.9 Construction project management services
18.3.10 Construction management services	19.3.10 Construction management services
18.4 Other products related to apartment and non-residential constructions	19.4 Other products related to apartment and non-residential constructions
18.4.1 Real estate services for buying, selling, and renting non-residential constructions and land	19.4.1 Real estate services for buying, selling, and renting non-residential constructions and land
18.4.2 Rental and leasing of non-residential constructions and land	19.4.2 Rental and leasing of non-residential constructions and land
18.4.3 Financing products for apartment and non-residential constructions	19.4.3 Financing products for apartment and non-residential constructions
18.4.4 Insurance products for apartment and non-residential constructions	19.4.4 Insurance products for apartment and non-residential constructions
18.4.5 Building inspection services for apartment and non-residential buildings	19.4.5 Building inspection services for apartment and non-residential buildings
18.4.6 Building and land management and janitorial services for apartment and non-residential buildings	19.4.6 Building and land management and janitorial services for apartment and non-residential buildings
18.4.7 Security and safety services for apartment and non-residential buildings	19.4.7 Security and safety services for apartment and non-residential buildings
19 Capital equipment and related products	20 Capital equipment and related products
19.1 Office equipment and related products (except computers)	20.1 Office equipment and related products (except computers)
19.1.1 Office equipment (except computers)	20.1.1 Office equipment (except computers)
19.1.2 Wholesaling services for office equipment (except computers)	20.1.2 Wholesaling services for office equipment (except computers)
19.1.3 Retailing services for office equipment (except computers)	20.1.3 Retailing services for office equipment (except computers)
19.1.4 Rental services for office equipment (except computers)	20.1.4 Rental services for office equipment (except computers)
19.1.5 Maintenance and repair services for office equipment (except computers)	20.1.5 Maintenance and repair services for office equipment (except computers)

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
19.2 Computers and peripheral equipment and communications equipment, and related products	20.2 Computers and peripheral equipment and communications equipment, and related products
19.2.1 Computers and peripheral equipment and communications equipment	20.2.1 Computers and peripheral equipment and communications equipment
19.2.2 Wholesaling services for computers and peripheral equipment and communications equipment	20.2.2 Wholesaling services for computers and peripheral equipment and communications equipment
19.2.3 Retailing services for computers and peripheral equipment and communications equipment	20.2.3 Retailing services for computers and peripheral equipment and communications equipment
19.2.4 Rental services for computers and peripheral equipment and communications equipment	20.2.4 Rental services for computers and peripheral equipment and communications equipment
19.2.5 Maintenance and repair services for computers and peripheral equipment and communications equipment	20.2.5 Maintenance and repair services for computers and peripheral equipment and communications equipment
19.3 Computer software and related products	20.3 Computer software and related products
19.3.1 Computer software	20.3.1 Computer software
19.3.2 Wholesaling services for computer software	20.3.2 Wholesaling services for computer software
19.3.3 Retailing services for computer software	20.3.3 Retailing services for computer software
19.4 Transportation equipment and related products	20.4 Transportation equipment and related products (except retail services)
19.4.1 Transportation equipment	20.4.1 Transportation equipment
19.4.2 Wholesaling services for transportation equipment	20.4.2 Wholesaling services for transportation equipment
19.4.3 Retailing services for transportation equipment	
19.4.4 Rental services for transportation equipment	20.4.3 Rental services for transportation equipment
19.4.5 Maintenance and repair services for transportation equipment	20.4.4 Maintenance and repair services for transportation equipment
19.5 Agricultural, construction, forestry, mining, and oil and gas field machinery and equipment and related products	20.5 Agricultural, construction, forestry, mining, and oil and gas field machinery and equipment and related products (except retail services)
19.5.1 Agricultural, construction, forestry, mining, and oil and gas field machinery and equipment	20.5.1 Agricultural, construction, forestry, mining, and oil and gas field machinery and equipment
19.5.2 Wholesaling services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment	20.5.2 Wholesaling services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment
19.5.3 Retailing services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment	
19.5.4 Rental services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment	20.5.3 Rental services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment
19.5.5 Maintenance and repair services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment	20.5.4 Maintenance and repair services for agricultural, construction, forestry, mining, and oil and gas field machinery and equipment
19.6 Industrial machinery and equipment and related products	20.6 Industrial, commercial, and service industry machinery and equipment and related products (except retail services)
19.6.1 Industrial machinery and equipment	20.6.1 Industrial, commercial, and service industry machinery and equipment
19.6.2 Wholesaling services for industrial machinery and equipment	20.6.1.1 Industrial machinery and equipment
19.6.3 Retailing services for industrial machinery and equipment	20.6.1.2 Commercial and service industry machinery and equipment
19.6.4 Rental services for industrial machinery and equipment	20.6.2 Wholesaling services for industrial, commercial, and service industry machinery and equipment
19.6.5 Maintenance and repair services for industrial machinery and equipment	20.6.3 Rental services for industrial, commercial, and service industry machinery and equipment
19.7 Commercial and service industry machinery and equipment and related products	20.6.4 Maintenance and repair services for industrial, commercial, and service
19.7.1 Commercial and service industry machinery and equipment	
19.7.2 Wholesaling services for commercial and service industry machinery and equipment	
19.7.3 Retailing services for commercial and service industry machinery and equipment	

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
19.7.4 Rental services for commercial and service industry machinery and equipment	
19.7.5 Maintenance and repair services for commercial and service industry machinery and equipment	
	20.7 Retail services for transportation equipment (except cars and light trucks) and other machinery and equipment
19.8 Consulting services for maintenance and repair of machinery and equipment	20.8 Consulting services for maintenance and repair of machinery and equipment
20 Intellectual property and related products	21 Intellectual property and related products
20.1 Intellectual property works	21.1 Intellectual property works
20.1.1 Intellectual property works protected as industrial property (including patents, trademarks, industrial designs, and trade secrets)	21.1.1 Intellectual property works protected as industrial property (including patents, trademarks, industrial designs, and trade secrets)
20.1.2 Intellectual property works protected by copyright	21.1.2 Intellectual property works protected by copyright
20.2 Licensing for rights to use intellectual property	21.2 Licensing for rights to use intellectual property
20.3 Research and development services for intellectual property	21.3 Research and development services for intellectual property
20.3.1 Basic research services	21.3.1 Basic research services
20.3.2 Applied research services	21.3.2 Applied research services
20.3.3 Development services	21.3.3 Development services
20.3.4 Consulting services for research and development	21.3.4 Consulting services for research and development
20.4 Products related to intellectual property	21.4 Products related to intellectual property
20.4.1 Franchising agreements	21.4.1 Franchising agreements
20.4.2 Sporting event broadcast and other media rights	21.4.2 Sporting event broadcast and other media rights
20.4.3 Contract live sporting events	21.4.3 Contract live sporting events
20.4.4 Leasing of rights to explore for and exploit natural resources	21.4.4 Leasing of rights to explore for and exploit natural resources
20.4.5 Collection loans and rental of art works	21.4.5 Collection loans and rental of art works
20.4.6 Retailing services for first sale of original art and other intellectual property	21.4.6 Retailing services for first sale of original art and other intellectual property
20.4.9 Licensing and sale of rights, nec.	21.4.9 Licensing and sale of rights, nec.
In version A, this group of products is product subclass 27.1 below	22 Specialized design services (except interior design)
	22.1.1 Industrial design services
	22.1.2 Graphic design services
	22.1.3 Clothing and other specialized design services, nec.
In version A, this group of products is product subclass 27.2 below	23 Testing services (except automotive regulatory safety and emissions)
21 Labor supply and related products (except human resources management consulting services)	24 Labor supply and related products (except human resources management consulting services)
21.1 Labor supply services	24.1 Labor supply services
21.2 Employment related services (except human resources management consulting)	24.2 Employment related services (except human resources management consulting)
21.3 Union services	24.3 Union services
22 Non-residential natural gas, steam, and electric utility services	In version B, this group of products moved to product class 18 above
22.1 Non-residential natural gas distribution services	
22.2 Non-residential steam distribution services	
22.3 Electric utilities and related products	
22.4 Support services for energy distribution	
23 Non-residential water, sewer, and environmental services	25 Non-residential water, sewer, and environmental services

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Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
23.1 Non-residential water supply and sewage treatment services	25.1 Non-residential water supply and sewage treatment services
23.2 Non-residential waste management services (except sewage treatment)	25.2 Non-residential waste management services (except sewage treatment)
23.3 Environmental remediation and site management services	25.3 Environmental remediation and site management services
23.4 Environmental consulting services	25.4 Environmental consulting services
23.5 Other environmental services (except engineering)	25.5 Other environmental services (except engineering)
24 Material inputs and supplies for production	26 Materials and supplies for production (except processed food and beverage inputs for human food manufacturing and food services), and related products
24.1 Materials and supplies for food and beverage manufacturing, and related products	26.1 Materials and supplies for production (except processed food and beverage inputs for human food manufacturing and food services)
24.1.1 Materials and supplies for food and beverage manufacturing	26.1.1 Materials and supplies for food manufacturing and food services (except processed food and beverage inputs for human food manufacturing and food services)
24.1.2 Wholesaling services for materials and supplies for food and beverage manufacturing	26.1.1.1 Raw agricultural materials and supplies for food manufacturing and food services
24.1.3 Retailing services for materials and supplies for food and beverage manufacturing	26.1.1.2 Products for animal and marine feed manufacturing
24.2 Materials and supplies for tobacco manufacturing, and related products	26.1.2 Materials and supplies for tobacco manufacturing
24.2.1 Materials and supplies for tobacco manufacturing	26.1.3 Materials and supplies for textile manufacturing
24.2.2 Wholesaling services for materials and supplies for tobacco manufacturing	26.1.4 Materials and supplies for clothing, leather, and footwear manufacturing
24.2.3 Retailing services for materials and supplies for tobacco manufacturing	26.1.5 Materials and supplies for wood product and furniture manufacturing
24.3 Materials and supplies for textile manufacturing, and related products	26.1.6 Materials and supplies for paper manufacturing
24.3.1 Materials and supplies for textile manufacturing	26.1.7 Materials and supplies for printing processes
24.3.2 Wholesaling services for materials and supplies for textile manufacturing	26.1.8 Materials and supplies for petroleum and coal products manufacturing
24.3.3 Retailing services for materials and supplies for textile manufacturing	26.1.9 Materials and supplies for chemical manufacturing
24.4 Materials and supplies for clothing, leather, and footwear manufacturing, and related products	26.1.10 Materials and supplies for plastics and rubber products manufacturing
24.4.1 Materials and supplies for clothing, leather, and footwear manufacturing	26.1.11 Materials and supplies for stone, clay, and glass products manufacturing
24.4.2 Wholesaling services for materials and supplies for clothing, leather, and	26.1.12 Materials and supplies for primary metals manufacturing
24.4.3 Retailing services for materials and supplies for clothing, leather, and footwear manufacturing	26.1.13 Materials and supplies for fabricated metal manufacturing
24.5 Materials and supplies for wood product manufacturing, and related products	26.1.14 Materials and supplies for machinery and transportation equipment manufacturing
24.5.1 Materials and supplies for wood product manufacturing	26.1.15 Materials and supplies for electronic and electrical equipment, appliances, and component manufacturing
24.5.2 Wholesaling services for materials and supplies for wood product manufacturing	26.1.16 Materials and supplies for miscellaneous manufacturing
24.5.3 Retailing services for materials and supplies for wood product manufacturing	26.1.17 Materials and supplies for agriculture, hunting, and fishing and lawn and landscaping services
24.6 Materials and supplies for paper manufacturing, and related products	26.1.18 Materials and supplies for construction and mining
24.6.1 Materials and supplies for paper manufacturing	26.1.19 Materials and supplies for maintenance and repair services
24.6.2 Wholesaling services for materials and supplies for paper manufacturing	26.1.20 Materials and supplies for services, nec.
24.6.3 Retailing services for materials and supplies for paper manufacturing	26.1.21 General industry and miscellaneous materials and supplies, nec.
24.7 Materials and supplies for printing processes, and related products	26.1.21.1 Packing and packaging materials and supplies
24.7.1 Materials and supplies for printing processes	26.1.21.2 Office and school supplies
24.7.2 Wholesaling services for materials and supplies for printing processes	26.1.21.9 Other general industry and miscellaneous materials and supplies
24.7.3 Retailing services for materials and supplies for printing processes	26.2 Wholesaling services for material and supplies for production (except processed food and beverage inputs to food manufacturing and food services)

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
24.8 Materials and supplies for petroleum and coal products manufacturing, and related products	26.3 Retailing services for material and supplies for production (except processed food and beverage inputs to food manufacturing and food services)
24.8.1 Materials and supplies for petroleum and coal products manufacturing	
24.8.2 Wholesaling services for materials and supplies for petroleum and coal products manufacturing	
24.8.3 Retailing services for materials and supplies for petroleum and coal products manufacturing	
24.9 Materials and supplies for chemical manufacturing, and related products	
24.9.1 Materials and supplies for chemical manufacturing	
24.9.2 Wholesaling services for materials and supplies for chemical manufacturing	
24.9.3 Retailing services for materials and supplies for chemical manufacturing	
24.10 Materials and supplies for plastics and rubber products manufacturing, and related products	
24.10.1 Materials and supplies for plastics and rubber products manufacturing	
24.10.2 Wholesaling services for materials and supplies for plastics and rubber products manufacturing	
24.10.3 Retailing services for materials and supplies for plastics and rubber products manufacturing	
24.11 Materials and supplies for stone, clay, and glass products manufacturing, and related products	
24.11.1 Materials and supplies for stone, clay, and glass products manufacturing	
24.11.2 Wholesaling services for materials and supplies for stone, clay, and glass products manufacturing	
24.11.3 Retailing services for materials and supplies for stone, clay, and glass products manufacturing	
24.12 Materials and supplies for primary metals manufacturing, and related products	
24.12.1 Materials and supplies for primary metals manufacturing	
24.12.2 Wholesaling services for materials and supplies for primary metals manufacturing	
24.12.3 Retailing services for materials and supplies for primary metals manufacturing	
24.13 Materials and supplies for fabricated metal manufacturing, and related products	
24.13.1 Materials and supplies for fabricated metal manufacturing	
24.13.2 Wholesaling services for materials and supplies for fabricated metal manufacturing	
24.13.3 Retailing services for materials and supplies for fabricated metal manufacturing	
24.14 Materials and supplies for machinery and transportation equipment manufacturing, and related products	
24.14.1 Materials and supplies for machinery and transportation equipment manufacturing	
24.14.2 Wholesaling services for materials and supplies for machinery and transportation equipment manufacturing	
24.14.3 Retailing services for materials and supplies for machinery and transportation equipment manufacturing	
24.15 Materials and supplies for electronic and electrical equipment, appliances, and component manufacturing, and related products	

Exhibit: NAPCS "Strawman" Structure

Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
24.15.1 Materials and supplies for electronic and electrical equipment , appliances, and component manufacturing	
24.15.2 Wholesaling services for materials and supplies for electronic and electrical equipment , appliances, and component manufacturing	
24.15.3 Retailing services for materials and supplies for electronic and electrical equipment , appliances, and component manufacturing	
24.16 Materials and supplies for furniture and miscellaneous manufacturing, and related products	
24.16.1 Materials and supplies for furniture and miscellaneous manufacturing	
24.16.2 Wholesaling services for materials and supplies for furniture and miscellaneous manufacturing	
24.16.3 Retailing services for materials and supplies for furniture and miscellaneous manufacturing	
24.17 Materials and supplies for agriculture, hunting, and fishing, and related products	
24.17.1 Materials and supplies for agriculture, hunting, and fishing	
24.17.2 Wholesaling services for materials and supplies for agriculture, hunting, and fishing	
24.17.3 Retailing services for materials and supplies for agriculture, hunting, and fishing	
24.18 Materials and supplies for construction and mining, and related products	
24.18.1 Materials and supplies for construction and mining	
24.18.2 Wholesaling services for materials and supplies for construction and mining	
24.18.3 Retailing services for materials and supplies for construction and mining	
24.19 Fuels for heat, power, and transportation, and related products	In version B, this group of products moved under product class 18 above.
24.19.1 Fuels for heat, power, and transportation,	
24.19.2 Wholesaling services for fuels for heat, power, and transportation	
24.19.3 Retailing services for fuels for heat, power, and transportation	
24.20 Materials and supplies for maintenance and repair services, and related products	
24.20.1 Materials and supplies for maintenance and repair services	
24.20.2 Wholesaling services for materials and supplies for maintenance and repair services	
24.20.3 Retailing services for materials and supplies for maintenance and repair services	
24.21 Materials and supplies for other services, and related products	
24.21.1 Materials and supplies for other services	
24.21.2 Wholesaling services for materials and supplies for other services	
24.21.3 Retailing services for materials and supplies for other services	
24.22 General industry and miscellaneous materials and supplies, nec., and related products	
24.22.1 Packing and packaging materials and supplies, and related products	
24.22.1.1 Packing and packaging materials and supplies	
24.22.1.2 Wholesaling services for packing and packaging materials and supplies	
24.22.1.3 Retailing services for packing and packaging materials and supplies	
24.22.2 Office and school supplies, and related products	
24.22.2.1 Office and school supplies	
24.22.2.2 Wholesaling services for office and school supplies	

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Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
24.22.2.3 Retailing services for office and school supplies	
24.22.9 Other general industry and miscellaneous materials and supplies, and related products	
24.22.9.1 Other general industry and miscellaneous materials and supplies	
24.22.9.2 Wholesaling services for other general industry and miscellaneous materials and supplies	
24.22.9.3 Retailing services for other general industry and miscellaneous materials and supplies	
25 Goods transportation services and related products	27 Goods transportation services and related products
25.1 Transportation services for goods	27.1 Transportation services for goods
25.2 Warehousing and storage services	27.2 Warehousing and storage services
25.3 Freight transportation arrangement and customs brokering services	27.3 Freight transportation arrangement and customs brokering services
25.4 Handling and packing and related services for goods	27.4 Handling and packing and related services for goods
26 Other service inputs to production (except manufacturing services)	28 Other service inputs to production (except manufacturing services)
26.1 Specialized design services (except interior design)	In version B this group of products is now product class 22 above
26.1.1 Industrial design services	
26.1.2 Graphic design services	
26.1.3 Clothing and other specialized design services, nec.	
26.2 Testing services (except automotive regulatory safety and emissions)	In version B this group of products is now product class 23 above
26.3 Advertising, marketing, and related services	28.1 Advertising, marketing, and related services
26.3.1 Advertising space, time, and similar services	28.1.1 Advertising space, time, and similar services
26.3.2 Advertising planning, production, and implementation services	28.1.2 Advertising planning, production, and implementation services
26.3.3 Marketing research and public opinion polling services	28.1.3 Marketing research and public opinion polling services
26.3.9 Other advertising services and marketing research services	28.1.9 Other advertising services and marketing research services
26.4 Public relations and related services	28.2 Public relations and related services
26.4.1 Full public relations services	28.2.1 Full public relations services
26.4.2 Media relations services	28.2.2 Media relations services
26.4.3 Crisis management services	28.2.3 Crisis management services
26.4.4 Lobbying services	28.2.4 Lobbying services
26.4.5 Public relations event management services	28.2.5 Public relations event management services
26.4.6 Media monitoring and analysis services	28.2.6 Media monitoring and analysis services
26.4.9 Other public relations services	28.2.9 Other public relations services
26.5 Publishing and related services for trade, professional, and business	28.3 Publishing related services for trade, professional, and business (except publications)
26.5.1 Publications (except mailing lists and software) for trade, professional, and business, and related products	In version B, all publications (except mailing lists, directories, and databases) moved to product class 5 above; directories and databases moved to subclass 27.3 above, with mailing lists.
26.5.1.1 Publications (except mailing lists and software) for trade, professional, and business	
26.5.1.2 Wholesaling services for publications for trade, professional, and business	
26.5.1.3 Retailing services for publications for trade, professional, and business	
26.5.9 Publishing related services for trade, professional, and business	
26.5.9.1 Contract publishing services	28.3.1 Contract publishing services
26.5.9.2 Contract printing and distribution services (except for direct mail advertising and local delivery services)	28.3.2 Contract printing and distribution services (except for direct mail advertising and local delivery services)
26.5.9.3. Archive services (except admissions)	28.3.3. Archive services (except admissions)
26.5.9.4 Consulting services, book publishing	28.3.4 Consulting services, book publishing

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Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
26.6 Broadcasting services for trade, professional, and business	28.4 Broadcasting services for trade, professional, and business
26.7 Motion picture and video services for trade, professional, and business	28.5 Motion picture and video services for trade, professional, and business
26.7.1 Preproduction services for audiovisual works	28.5.1 Preproduction services for audiovisual works
26.7.2 Postproduction services for audiovisual works	28.5.2 Postproduction services for audiovisual works
26.7.3 Motion picture film laboratory services	28.5.3 Motion picture film laboratory services
26.7.4 Support services for production of audiovisual works	28.5.4 Support services for production of audiovisual works
26.7.5 Duplication and copying (except large-run) services for audiovisual works,	28.5.5 Duplication and copying (except large-run) services for audiovisual works,
26.8 Record and sound recording services for trade, professional, and business	28.6 Record and sound recording services for trade, professional, and business
26.8.1 Studio recording services	28.6.1 Studio recording services
26.8.2 Live recording services	28.6.2 Live recording services
26.8.3 Support services for sound recording by others	28.6.3 Support services for sound recording by others
26.8.4 Audio transfer services	28.6.4 Audio transfer services
26.8.5 Audio copying services	28.6.5 Audio copying services
26.8.6 Distribution services for phonorecords	28.6.6 Distribution services for phonorecords
26.8.5 Administration of musical copyrights for others	28.6.5 Administration of musical copyrights for others
26.8.7 Pre-production, production, and post-production services for radio	28.6.7 Pre-production, production, and post-production services for radio
26.9 Communications and information and related services for trade, professional, and business	28.7 Communications and information and related services for trade, professional, and business
26.9.1 Carrier services and Internet backbone services	28.7.1 Carrier services and Internet backbone services
26.9.2 Internet access, always-on, business	28.7.2 Internet access, always-on, business
26.9.3 Nonresidential telephony and related services	28.7.3 Nonresidential telephony and related services
26.9.4 Information technology and related services	28.7.4 Information technology and related services
26.9.9 Other information services	28.7.9 Other information services
26.10 Management consulting services (excluding IT consulting)	28.8 Management consulting services (excluding IT consulting)
26.10.1 Strategic management consulting services	28.8.1 Strategic management consulting services
26.10.2 Financial management consulting services	28.8.2 Financial management consulting services
26.10.3 Marketing management consulting services	28.8.3 Marketing management consulting services
26.10.4 Human resources management consulting services	28.8.4 Human resources management consulting services
26.10.5 Operations and supply chain management consulting services	28.8.5 Operations and supply chain management consulting services
26.10.6 Strategic management consulting and implementation services bundle	28.8.6 Strategic management consulting and implementation services bundle
26.10.7 Financial management consulting and implementation services bundle	28.8.7 Financial management consulting and implementation services bundle
26.10.8 Marketing management consulting and implementation services bundle	28.8.8 Marketing management consulting and implementation services bundle
26.10.9 Human resources management consulting and implementation services bundle	28.8.9 Human resources management consulting and implementation services bundle
26.10.10 Operations and supply chain management consulting and implementation	28.8.10 Operations and supply chain management consulting and implementation
26.10.11 Expert witness services, management	28.8.11 Expert witness services, management
26.11 Management and operation and related services for business (except property and construction project management)	28.9 Management and operation and related services for business (except property and construction project management)
26.11.1 Managed services	28.9.1 Managed services
26.11.1.1 Facility support services	28.9.1.1 Facility support services
26.11.1.2 Office administrative services	28.9.1.2 Office administrative services
26.11.2 Bundled head-office services to the enterprise	28.9.2 Bundled head-office services to the enterprise
26.11.3 Project management services, except construction	28.9.3 Project management services, except construction
26.11.4 Career management and representation services for artists, athletes,	28.9.4 Career management and representation services for artists, athletes,
26.11.5 Support services for live performing arts and sports events	28.9.5 Support services for live performing arts and sports events
26.11.6 Management, operation, and support services for transportation systems	28.9.6 Management, operation, and support services for transportation systems
26.12 Financial and insurance and related services, nec., for trade, professional, and business	28.10 Financial and insurance and related services, nec., for trade, professional, and business
26.12.1 Loan services	28.10.1 Loan services
26.12.2 Credit financing services, except loans	28.10.2 Credit financing services, except loans

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26.12.3 Securities origination services	28.10.3 Securities origination services
26.12.4 Brokering and dealing services	28.10.4 Brokering and dealing services
26.12.5 Financing related to securities	28.10.5 Financing related to securities
26.12.6 Trading securities and commodity contracts on own account	28.10.6 Trading securities and commodity contracts on own account
26.12.7 Cash handling and management services for business	28.10.7 Cash handling and management services for business
26.12.8 Cashier's and certified check services	28.10.8 Cashier's and certified check services
26.12.9 Money order services	28.10.9 Money order services
26.12.10 Letters of credit services	28.10.10 Letters of credit services
26.12.11 Trust services	28.10.11 Trust services
26.12.12 Support services for financial and commodity markets	28.10.12 Support services for financial and commodity markets
26.12.13 Automated clearing house (ACH) services	28.10.13 Automated clearing house (ACH) services
26.12.14 Financial planning and investment management services for businesses and	28.10.14 Financial planning and investment management services for businesses and
26.12.15 Other products supporting financial services	28.10.15 Other products supporting financial services
26.12.16 Insurance underwriting services	28.10.16 Insurance underwriting services
26.12.17 Reinsurance services	28.10.17 Reinsurance services
26.12.18 Insurance support services	28.10.18 Insurance support services
26.12.19 Spot trading services for commodities	28.10.19 Spot trading services for commodities
26.12.20 Services related to financial and insurance services, nec	28.10.20 Services related to financial and insurance services, nec
26.13 Accounting and related services (except IT support services) for trade, professional, and business	28.11 Accounting and related services (except IT support services) for trade, professional, and business
26.13.1 Financial assurance and related services	28.11.1 Financial assurance and related services
26.13.2 Non-financial assurance and related services	28.11.2 Non-financial assurance and related services
26.13.3 General accounting services	28.11.3 General accounting services
26.13.4 Bookkeeping and compilation services	28.11.4 Bookkeeping and compilation services
26.13.5 Payroll services	28.11.5 Payroll services
26.13.6 Taxation services for corporate and other clients (except individuals and unincorporated businesses)	28.11.6 Taxation services for corporate and other clients (except individuals and unincorporated businesses)
26.13.7 Inventory taking services	28.11.7 Inventory taking services
26.14 Legal and related services for trade, professional, and business	28.12 Legal and related services for trade, professional, and business
26.14.1 Legal services	28.12.1 Legal services
26.14.2 Legal consulting services	28.12.2 Legal consulting services
26.14.3 Legal support and related services (except legal consulting services)	28.12.3 Legal support and related services (except legal consulting services)
26.14.4 Arbitration, mediation, and conciliation services (except environmental)	28.12.4 Arbitration, mediation, and conciliation services (except environmental)
26.15 Translation, interpretation, and related services	28.13 Translation, interpretation, and related services
26.15.1 Translation services	28.13.1 Translation services
26.15.2 Interpretation services	28.13.2 Interpretation services
26.15.3 Services related to translation and interpretation	28.13.3 Services related to translation and interpretation
26.16 Photographic services for trade, professional, and business	28.14 Photographic services for trade, professional, and business
26.16.1 Convention and meeting photography services	28.14.1 Convention and meeting photography services
26.16.2 Commercial and industrial photography services	28.14.2 Commercial and industrial photography services
26.16.3 Commercial and professional-grade photo finishing services	28.14.3 Commercial and professional-grade photo finishing services
26.99 Other service inputs to production, nec. (except manufacturing services)	28.99 Other service inputs to production, nec. (except manufacturing services)
26.99.1 Contract farming	28.99.1 Contract farming
26.99.2 Contract logging	28.99.2 Contract logging
26.99.3 Contract mining and oil and gas extraction support services (excluding infrastructure)	28.99.3 Contract mining and oil and gas extraction support services (excluding infrastructure)
26.99.4 Aerial support services, nec.	28.99.4 Aerial support services, nec.
26.99.5 Marine support services, nec.	28.99.5 Marine support services, nec.
26.99.9 Miscellaneous services for trade, professional, and business	28.99.9 Miscellaneous services for trade, professional, and business

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Version A: NAPCS "Strawman" Structure before Three Country Implementation Agreements for Manufacturing, Wholesale, and Retail Products	Version B: NAPCS "Strawman" Structure after Three Country Implementation Agreements (changes in green type) for Manufacturing, Wholesale, and Retail Products; and after proposed changes by author (in red type)
27 Manufacturing and related services	29 Manufacturing and related services
27.1 Food and beverage manufacturing services	29.1 Food and beverage manufacturing services
27.2 Beverage and Tobacco manufacturing services	29.2 Beverage and Tobacco manufacturing services
27.3 Textile mills and related products manufacturing services	29.3 Textile mills and related products manufacturing services
27.4 Apparel Clothing, leather, and footwear and related products manufacturing services	29.4 Apparel Clothing, leather, and footwear and related products manufacturing services
27.5 Wood product manufacturing services	29.5 Wood product manufacturing services
27.6 Paper manufacturing services	29.6 Paper manufacturing services
27.7 Printing & related manufacturing services	29.7 Printing & related manufacturing services
27.8 Petroleum & coal product related manufacturing services	29.8 Petroleum & coal product related manufacturing services
27.9 Chemical manufacturing services	29.9 Chemical manufacturing services
27.10 Plastics & rubber manufacturing services	29.10 Plastics & rubber manufacturing services
27.11 Stone, clay, and glass (nonmetallic) mineral manufacturing services	29.11 Stone, clay, and glass (nonmetallic) mineral manufacturing services
27.12 Primary metal processing and metalworking manufacturing services	29.12 Primary metal processing and metalworking manufacturing services
27.13 Machinery manufacturing services	29.13 Machinery manufacturing services
27.14 Computer and electronic and electrical product manufacturing services	29.14 Computer and electronic and electrical product manufacturing services
27.15 Transport equipment manufacturing services	29.15 Transport equipment manufacturing services
27.16 Furniture & related product manufacturing services	29.16 Furniture & related product manufacturing services
27.19 Manufacturing and related services, nec.	29.19 Manufacturing and related services, nec.
28 Public administration services	30 Public administration services
	31. Retail trade services for antiques, collectibles, and other used goods (excluding transportation and machinery goods)